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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,772

07/24/2003

Takuya Uchiyama

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7854

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7590

02/14/2006

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EXAMINER

WALSH, DANIEL I

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

E/C

<b>Office Action Summary</b>	Application No. 10/625,772	Applicant(s) UCHIYAMA ET AL.	
	Examiner Daniel I. Walsh	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 15-18, 20 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 15-18, 20 and 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Receipt is acknowledged of the response received on 21 December 2005.
2. Claims 2-7, 23, and 24 were indicated as allowable in the Office Action (mail date 18 May 2005). The indicated allowability of these claims is withdrawn in view of the newly discovered reference(s) to Inudou et al. (JP 2000-090215), Chung (US 2003/0052788), and Teicher et al. (US 6,257,486). Rejections based on the newly cited reference(s) follow. Any delay is regretted.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 7, 15, 24, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Inudou et al. (JP 2000-090215).

Re claim 7, Inudou et al. teaches a non-contact IC card reader device (1), antennas that perform wireless transmission and reception of carrier waves between the non-contact IC card reader/writer device and a non-contact IC card (FIG. 2), a detector that detects the voltage level of each of the carrier waves received from the non-contact IC card via the antennas and a control unit that calculates the location of the non-contact IC card based on the detected voltage levels detected by the detector (see paragraph [0017] and FIG. 3).

Re claim 25, the limitations have been discussed above re claim 7.

Re claim 15, the limitations have been discussed above re claim 7.

Re claim 24 and 1, the limitations have been discussed above re claim 7.

Re claim 5, Inudou et al. teaches the optical limitations of claim 5 (FIG. 5 for example).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 2-4 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inudou et al., as discussed above, in view of Chung (US 2003/0052788).

The teachings of Inudou et al. have been discussed above but are silent to the details of how the antennas are driven (simultaneously or alternately/sequential). Inudou et al. teaches the

array of antennas for locating the card (FIG. 2). It is obvious that the antennas are driven by a control unit in order to control them as is conventional in the art.

Chung teaches an antenna array (44) that is used to track tags/smart tags. Chung teaches that the antennas are operated simultaneously when spatially separated or sequentially/temporally activated to reduce interference (paragraph [0070]).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Inudou et al. with those of Chung.

One would have been motivated to do this to control the activation of the antennas in order to accurately detect a card/tag using well known antenna array activation to suit the array (whether the antennas would interfere or not), or for other considerations such as power usage, reduction of extraneous fields, etc.

5. Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inudou et al., as discussed above, in view of

The teachings of Inudou et al. have been discussed above. Inudou et al. teaches detecting a card through voltage changes, and selecting a candidate for transmission in order to reduce the strength of an electromagnetic field caused by an antenna of a reader/writer that is distant from the card.

Inudou et al. is silent that the detecting field changes on the plane of antennas by Hall elements to detect the card location, as Inudou et al. states that the voltage comes from the antenna, and is not specific on the teachings of how the voltage levels are detected/relayed to the system. However, the Examiner notes that it is obvious that an additional device/circuit/element performs the detection of voltage at the plane of the antennas, so that voltage information can be

provided to the system in to help determine the location of the card. Accordingly, the Examiner notes that Hall sensors are well known and conventional in the art for detecting changes in fields and outputting voltages in response. Accordingly, the Examiner notes that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use Hall sensors in order to accomplish the output of voltages, therefore using well known and conventional technology, to assist in the detection of the card location.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inudou et al., as cited above, in view of Teicher et al. (US 6,257,486).

The teachings of Inudou et al. have been discussed above.

Inudou et al. is silent to a touchpad for an operator to use in response to a request from an external device.

Teicher et al. teaches such limitations in a contactless smart card with keypad to be used by an operator to communicate with an external device (FIG. 15b for example).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Inudou et al. with those of Teicher et al.

One would have been motivated to do this in order to have a secure means to communicate a PIN for example (see abstract of Teicher et al.).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Chung (US 2005/0110640 and 2004/0036623), Yamamoto et al. (JP 2000-046939),

and Position Monitoring with Hall Effect Sensors

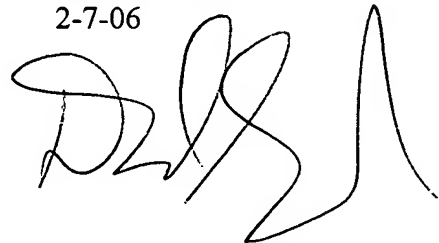
(<http://www.sensormag.com/articles/0902/52/main.shtml>).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel I. Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel I Walsh  
Examiner  
Art Unit 2876  
2-7-06

A handwritten signature in black ink, appearing to read 'D. I. Walsh', with a stylized, elongated final stroke.